REMARKS

The non-elected claims 6-22 and 27-35 have been cancelled, without prejudice, and new claims 36-38 have been added, so claims 1-5, 23-26, and 36-38 are in the Application. New claims 36 and 37 recite that the sheets of light produced by the rows of micro light sources are in the form of light that emanates from a Schleiren input grating. New claim 38 recites that the step of providing rows of light sources for producing sheets of light is operative to produce sheets of light that are in the form of light which emanates from a Schleiren input grating. Support for claims 36-38 can be found, for example, at page 6 of the specification and Figure 1.

Claims 1-5 and 23-26 stand rejected under 35 U.S.C. 102(e) as being anticipated by Tanner et al. U.S. Patent 6,751,001. Applicant respectfully traverses this rejection and requests reconsideration.

The background portion of the Tanner et al. citation discusses methods used in industry for converting images from one format to another to fully utilize all of the available display area. The methods include enlarging each column and row of pixels using various mathematical operations to approximate the pixel values in the final enlarged image, altering the sampling frequency to provide data at the correct pixel spacing using a scan conversion unit, or inserting blank pixels into an image and then interpolating the value of the blank pixels. Tanner et al. note that some interpolation

methods use weightings based on adjacent pixels, and that these and other interpolation techniques can involve increased complexity and can cause problems in the displayed images. An objective in Tanner et al. was to preserve the original image quality and to reduce complexity, and this was to be done by developing "a format conversion method which is passive and eliminates computational requirements of the prior art" (col. 2).

Tanner et al. provide a passive image format conversion device, which includes: a laser light at a predetermined frequency along a given optical path; a line converter placed in the optical path for converting the laser light to a fan of light; a lens which is moveable with respect to the light source and placed along the optical path within the fan of light and configured to collimate the fan of light; and an array of N light modulators placed in the path of the collimated light column. Tanner indicates that the moveable lens may be displaced along the optical path to produce a collimated light column of variable image sizes incident on a predetermined portion of the light modulators. This system is shown in Figure 1 and 2 of Tanner et al. which shows light source 101 (such as a laser light source), a line converter 102 (converts a beam of light to a fan of light), and a collimating lens 104 that is moveable, as shown in Figure 1, to change the extent of the column of light (e.g. is seen in a', b', c' in Figure 1). The light column is directed toward an array 105 of light modulators that receive an input signal, and the modulated light columns are projected toward a projection surface via a lens 105 and a moveable mirror 107. Thus it is seen that, as described in Tanner et al., the

produced image size is controlled by moving the lens 104.

The Tanner et al. system, which starts with a single light source 101, (or one light source for each color, red, green, blue), and then, from that source, produces a fan of light, and then, columns of light. This is very different from Applicant's claimed invention, both structurally and operationally.

Independent claim 1 recites an apparatus for displaying images represented by image-representative input signals, comprising: rows of micro light sources for producing sheets of light; a diffractive panel, in the path of said sheets of light, which receives said input signals and diffracts said sheets of light to obtain diffracted light imparted with image-representative information; and a Schleiren optical system for processing said diffracted light to produce images represented by said image-representative input signals. Independent claim 23, in method terms, is similar. Claim 23 recites a method for displaying images represented by image-representative input signals, comprising the following steps: providing rows of light sources for producing sheets of light; providing a modulator, in the path of said sheets of light, which receives said input signals and diffracts said sheets of light to obtain diffracted light imparted with image-representative information; and providing a Schleiren optical system for processing said diffracted light to produce images represented by said image-representative input signals.

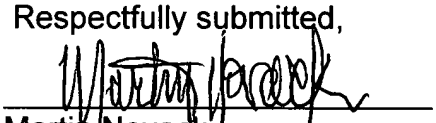
Both structurally and operationally, the claimed invention is distinct from the Tanner et al. teachings. Applicant's claims at issue recite rows of micro light sources

for producing sheets of light. These sheets of light are received by a diffractive panel which diffracts the sheets of light to obtain diffracted light imparted with the image information, and a Schleiren optical system processes the diffracted light to produce images. This has an advantage over prior art light valve displays that use Schleiren optical system processing (which typically employ a very intense bright light source such as an arc lamp, but suffer inefficiency when the input Schleiren bar grating blocks part of the light in order to obtain the desired bright sheets of light used for further processing and ultimate display), in that the light sheets produced by the rows of micro light sources are already in the form of light that emanates from a Schleiren input grating; namely, sheets of light. (This feature is defined further in new dependent claim 36-38.)

In contradistinction, the light source in the Tanner citation is a single laser source (or, one source for each color) that cannot and does not produce sheets of light as produced by Applicant's claimed rows of micro light sources (see, for example, elements 110 of Applicant's Figure 1). Tanner et al. is a very different type of processing system, and employs a single light source that is expanded into a fan of light which is then collimated. All this processing of a single light source is the very antithesis of Applicant's concept and structure of employing rows of micro light sources to directly and efficiently produce sheets of light for use in producing images using a diffractive panel and a Schleiren optical system.

In view of the foregoing it is believed that all claims of this application are now in condition for allowance, and such favorable action is respectfully solicited. In the event there are any remaining issues, however, it is asked that the Examiner kindly telephone the undersigned counsel collect so that they can be resolved.

Respectfully submitted,



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